Robust Method for Automatic Reading of Skewed, Rotated or Partially Obscured Characters

Abstract

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A character reading technique recognizes character strings in grayscale images where characters within such strings have poor contrast, are variable in position or rotation with respect to other characters in the string, or where portions of characters in the string are partially obscured. The method improves classification accuracy by improving the

1080   robustness of the underlying correlation operation or the character design. Characters are divided into regions before performing correlations. Based upon the relative individual region results, region results are combined into a whole character result. Using the characters that are read, a running checksum is computed and, based upon the checksum result, characters are replaced to produce a valid result.

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